ABSTRACT

In a LAN switch capable of recognizing a VLAN, a plurality of paths are associated with a VLAN having a plurality of same members as components, and frames from the members are mapped to a predetermined path selected from among the paths. Also, a plurality of different VLAN's are associated with a single group composed of a plurality of members, and frames from the members are mapped to a predetermined VLAN selected from among the VLAN's. Furthermore, information of a frame is associated with the group to which a member having transmitted the frame belongs, and the received frame is mapped to the group to which the member having transmitted the frame belongs, based on the information of the frame.